

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/535,303	NAMURA, YASUAKI	
	<b>Examiner</b>	<b>Art Unit</b>	
	Khanh Tran	2611	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment After Final Rejection filed on 03/27/2006.
2. ☒ The allowed claim(s) is/are 3-10, 13-19, 23-24, 26-27 and 29-30, which have been renumbered as set forth in the Office action.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br/>Paper No./Mail Date _____</li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</li> <li>6. <input type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date _____</li> <li>7. <input type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____</li> </ol> |
|---|--|

1. The Amendment After Final Rejection filed on 03/27/2006 has been entered.

Claims 3-10, 13-19, 23-24, 26-27 and 29-30 are pending in this Office action.

2. Claims have been renumbered as shown below, respectively:

- Claims 3-6 renumbered as claims 1-4;
- Claim 7 renumbered as claim 5;
- Claim 29 renumbered as claim 6;
- Claim 8 renumbered as claim 7;
- Claim 30 renumbered as claim 8;
- Claims 13-16 renumbered as claims 11-14;
- Claims 17-19 renumbered as claims 15-17;
- Claims 23-24 renumbered as claims 18-19;
- Claim 26 renumbered as claim 20 and
- Claim 27 renumbered as claims 21.

### ***Response to Arguments***

3. Applicant's arguments, see page 21 of Applicant's Remark, filed on 03/27/2006, with respect to claims 1-2, 11-12, 20-22, 25 and 28 have been fully considered and are persuasive. The rejection of claims 1-2, 11-12, 20-22, 25 and 28 has been withdrawn after Applicant cancelled all rejected claims.

**Reasons for Allowance**

The following is an examiner's statement of reasons for allowance:

4. Regarding claims 3 and 13, claims are allowed over the prior art of record because the cited references taken individually or in combination fail to particularly disclose a multiband data communication apparatus comprising "phase shifting means for shifting a phase of said local oscillation signal based upon said band switching signal to thereby supply the phase-shifted local oscillation signal to one or both of said pair of first quadrature mixers and to one or both of said pair of second quadrature mixers".

5. Regarding claims 7-9, claim are allowed over the prior art of record because the cited references taken individually or in combination fail to particularly disclose a multiband data communication apparatus comprising "storage means for saving thereinto discrete data of a frequency pattern component functioning as a base" and "address generating means for generating an address every pre-selected clock" and "first analog converting means for analog converting data which is read out by addressing said storage means based on the address outputted from said address generating means to thereby supply the analog-converted data to one of said pair of first quadrature mixers" and "second analog converting means for analog converting data which is read out by addressing said storage means based on the output of said phase shift means to thereby supply the analog-converted data to the other of said pair of first quadrature mixers".

6. Regarding claim 13, claim is allowed over the prior art of record because the cited references taken individually or in combination fail to particularly disclose a communication method of a multiband data communication apparatus including "shifting a phase of said local oscillation signal in response to the band switching signal to thereby supply the phase-shifted local oscillation signal to one or both of a first quadrature mixer and a second quadrature mixer, said first quadrature mixer converting either the reception signal or the reception intermediate frequency signal into a reception baseband signal, and said second quadrature mixer converting a transmission baseband signal into either the transmission signal or the transmission intermediate frequency signal".

7. Regarding claim 17, claim is allowed over the prior art of record because the cited references taken individually or in combination fail to particularly disclose a communication method of a multiband data communication apparatus comprising "a storing step for saving discrete data of a frequency pattern component functioning as a base" and "an address generating step for generating an address every preselected clock signal" and "a phase shifting step for adding a predetermined number based upon said band switching signal to said address" and "a first analog converting step for analog-converting data which is read out by addressing said storing step based on the address outputted from said address generating step to thereby supply the analog-converted data to one of a pair of first quadrature mixers for converting either the

reception signal or the reception intermediate frequency signal into reception baseband signal" and "a second analog converting step data which is read out by addressing said storing step based on the output of said phase shifting step to thereby supply the analog-converted data to the other of said first quadrature mixers".

8. Regarding claim 18, claim is allowed over the prior art of record because the cited references taken individually or in combination fail to particularly disclose a communication method of a multiband data communication apparatus comprising "a storing step for saving discrete data of a frequency pattern component functioning as a base" and "an address generating step for generating an address every preselected clock signal" and "a phase shifting step for adding a predetermined number based upon said band switching signal to said address" and "a first analog converting step for analog-converting data which is read out by addressing said storing step based on the address outputted from said address generating step to thereby supply the analog-converted data to one of a pair of second quadrature mixers for converting a transmission baseband signal into either the transmission signal or the transmission intermediate frequency signal" and "a second analog converting step for analog-converting data which is read out by addressing said storing step based on the output of said phase shifting step to thereby supply the analog-converted data to the other of said second quadrature mixers".

9. Regarding claim 19, claim is allowed over the prior art of record because the cited references taken individually or in combination fail to particularly disclose a communication method of a multiband data communication apparatus including “a storing step for saving discrete data of a frequency pattern component functioning as a base” and “an address generating step for generating an address every preselected clock signal” and “a phase shifting step for adding a predetermined number based upon said band switching signal to said address” and “a first analog converting step for analog-converting data which is read out by addressing said storing step based on the address outputted from said address generating step to thereby supply the analog-converted data to one of a first quadrature mixer and a second quadrature mixer, said first quadrature mixer converting either the reception signal or the reception intermediate frequency signal into a reception baseband signal, and said second quadrature mixer converting a transmission baseband signal into either the transmission signal or the transmission intermediate frequency signal” and “a second analog converting step for analog-converting data which is read out by addressing said storing step based on the output of said phase shifting step to thereby supply the analog-converted data to the other of said first quadrature mixer and said second quadrature mixer”.

10. Regarding claims 23-24 and 26-27, claims are allowable over prior art of record after Applicant has rewritten claims in independent form including all of the limitations of the base claim and any intervening claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh Tran whose telephone number is 571-272-3007. The examiner can normally be reached on Monday - Friday from 08:00 AM - 05:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 2611

KCT

Pham Cong Tran

04/07/2006

Primary Examiner

KHANH TRAN